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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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TC 1700

In re the application of:

Kazuyoshi Kawasaki et al.

Group Art Unit: 1713

Serial Number: 09/831,509

Examiner: Wilson, Donald R

Filed: September 28, 2001

For: FLUORINE-CONTAINING ELASTOMER AND COMPOSITION  
THEREOF FOR CROSSLINKINGDECLARATION UNDER 37 CFR 1.132

Honorable Commissioner

Washington, D.C. 20231

Sir,

Mitsuru Kishine, citizen of Japan, duly deposes and says:

1. That he has graduated from KYOTO INSTITUTE OF TECHNOLOGY, the Faculty of Engineering and Design, Japan, in the year of 1982;
2. That he was employed in his capacity since 1982 by DAIKIN INDUSTRIES, LTD.;
3. That he has been engaged in research and development on fluorine-containing elastomers and compositions;
4. That he has read and is familiar with the instant application for United States Letters Patent and the Office Action thereto mailed March 20, 2003;
5. That he experimented and proved that the description at page 39, lines 7-11 of USSN 09/831,509, that is "When an elastomer

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obtained by coagulation of the obtained product with magnesium chloride and ethanol was subjected to IR analysis for reference purpose, an absorption derived from carboxyl group eas not present and an absorption of magnesium salt of carboxylic acid was recognized at 1,729 cm<sup>-1</sup>." is correct.

## EXPERIMENTAL

To 78 g of the dispersion of TFE/PMVE/CNVE elastomer obtained by Example 1 in USSN 09/831,509 was added 80 ml of a 5 wt% aqueous solution of magnesium chloride and 80 ml of ethanol with stirring to coagulate the elastomer, followed by drying at 80 °C under an atmospheric pressure for 70 hours.

Thus obtained dried coagulant was analyzed by IR analysis.

## RESULTS

The IR chart of the coagulant of the elastomer by using magnesium chloride is attached.

As shown in the chart, the absorptions of carboxylic acid group by using hydrochloric acid in Example 1 observed at 1,774.9 cm<sup>-1</sup> and 1,808.6 cm<sup>-1</sup> were disappeared. Instead an absorption of magnesium salt of carboxylic acid was observed at 1,729 cm<sup>-1</sup>.

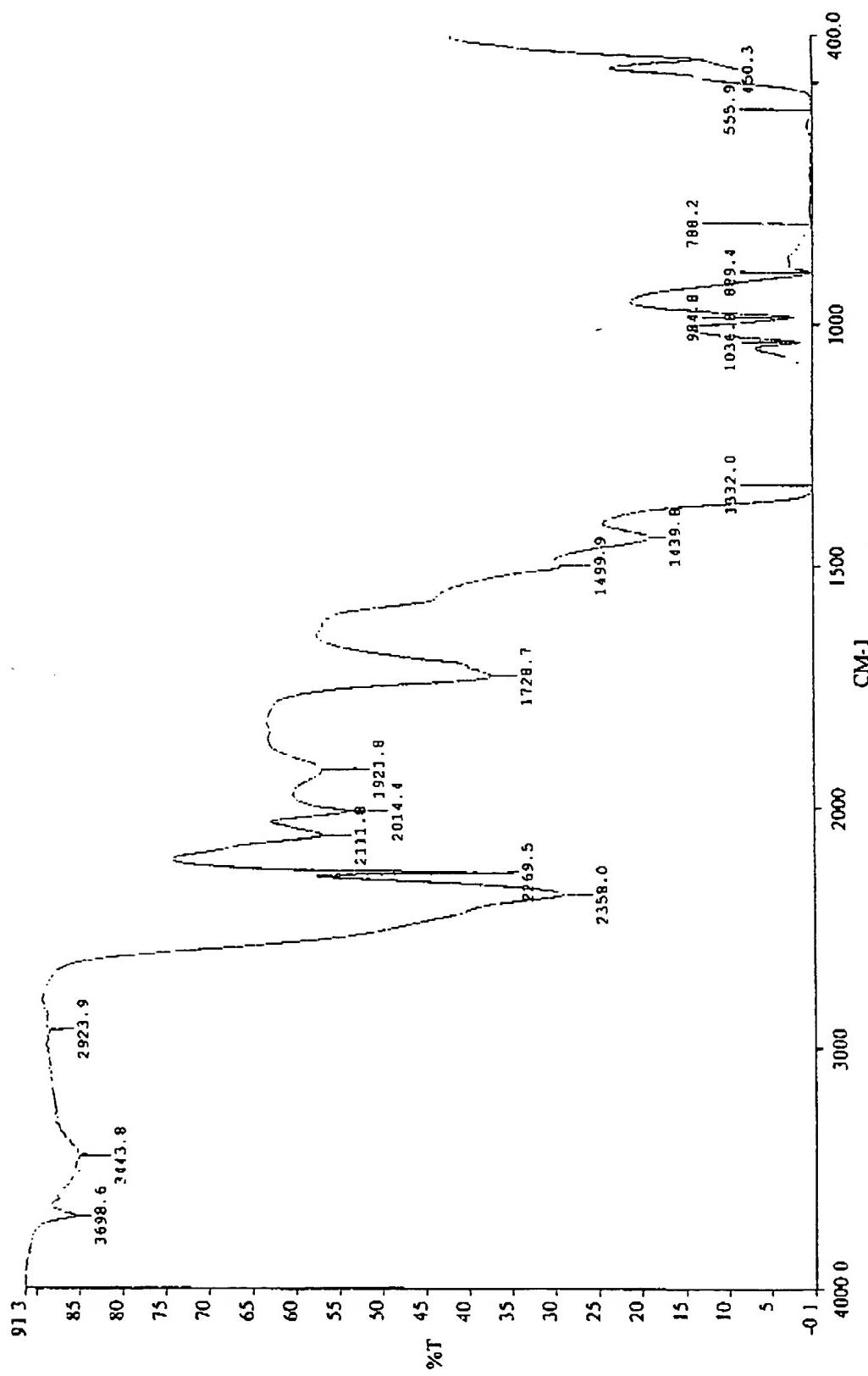
## DISCUSSION

When an elastomer was subjected to coagulation method with a salt, the carboxylic acid group was converted to a salt and the

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obtained coagulated product to be crosslinked does not contain a carboxylic acid group to have a crossinkable ability.

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The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

This 17th day of June, 2003

by Mitsuru Kishine  
Mitsuru Kishine

We, the undersigned witnesses, hereby acknowledge that Mitsuru Kishine is personally known to us and did execute the foregoing Declaration in our presence on:

Date: June 17, 2003

Witness Masaki Orie

Date: June 17, 2003

Witness Shigeru Morita